Advanced Environmental Remediation

WHY SHOULD YOU CARE?

Recently discovered environmental contaminants are a global threat to wildlife and human health and are causing new challenges to our communities. These emerging contaminants do not biodegrade under typical environmental conditions and resist most treatment technologies making them extremely persistent in the environment. Remediation is becoming more complex requiring site specific, cost-effective and scalable treatment approaches.

Health-based advisories for two of these emerging contaminants - perfluoroctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) have been developed by the United States Environmental Protection Agency and adopted by some state agencies. These perfluorinated chemicals (PFCs) are made-made and are used in a variety of products including firefighting foams, and coating additives. Another emerging contaminant, 1,4-dioxane, is often found as a co-contaminant at solvent release sites such as landfills, solvent recycling facilities, vapor degreasing operations, and fire-training areas. Exposure of these emerging contaminants to humans and wildlife has been widespread and has the potential to cause adverse ecological and human health effects.

WHY ENCHEM ENGINEERING?

EnChem Engineering, Inc. possesses the environmental remediation expertise, transformative technologies, effective processes, and resources to quickly solve the most complex emerging contaminant environmental challenges. We have been a remediation consultant and contractor to the US EPA, the US Air Force, and Fortune 500 companies. **To learn more, call (617) 795-0058 for a free consultation. Ask for our whitepapers on our patented advanced environmental processes.**

OxyZone®

Better Technology. Better Results.

OxyZone® is an effective in-ground (in-situ) and above-ground (ex-situ) chemical oxidation (ISCO) process to bring contaminated soil and groundwater sites into regulatory compliance and closure faster and with less cost.

EnChem Engineering uses the OxyZone process to bring complex sites with persistent and recalcitrant contaminants to closure when traditional technologies and method have failed to meet project goals.

The patented OxyZone process developed by EnChem Engineering uses a high-strength, multi-oxidant blend to overcome limitations found in most other environmental remediation treatment methods, resulting in significantly decreased remediation time and clean-up costs.

OxyZone treatment generates negligible heat and/or off-gases which makes it appropriate to inject near and underneath occupied buildings. By-products are benign and comply with regulatory groundwater standards. EnChem Engineering can customize the OxyZone process to provide a cost effective treatment based on the site specific groundwater and aquifer matrix conditions. The OxyZone process is scalable to handle large sites and can be complementary to other treatment methods.

In addition to being able to destroy emerging contaminants such as PFCs and 1,4-dioxane, OxyZone is an effective process with sites containing common organic compounds such as gasoline, fuel oils, and chlorinated organic compounds like tetrachloroethene ("PERC") and mixtures thereof.

Benefits of the OxyZone® Process

Versatile – a comprehensive suite of radicals and oxidants treats a wide range of organic contaminants in soil and groundwater

Persistent – OxyZone process achieves a very high oxidation potential immediately upon application and remains effective up to weeks after application

Easier – The OxyZone process generates no off-gas or heat making it easier to apply

Cost Effective – More complete clean-up in less time results in lower total cost

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www.en-chem.com
151B California Street, Newton MA 02458
(617) 795-0058